

3.3.6 Invasive Species

This section discusses invasive species with the potential to occur within the BSA and summarizes the results of fieldwork conducted to date, as well as the NES, which was completed in August 2011 and revised in March 2012.

3.3.6.1 Regulatory Setting

On February 3, 1999, President Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance, issued August 10, 1999, directs the use of the State’s invasive species list, maintained by the California Invasive Species Council, to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

3.3.6.2 Affected Environment

Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive species can move on vehicles and in the loads they carry. Invasive plants can be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor on equipment during construction and through the use of mulch, imported soil or gravel, and sod. In erosion control, landscape, or wildflower projects, some invasive plant species might be planted deliberately. Highway ROWs provide ample opportunity for weeds in adjacent land to spread along corridors that span, on a national scale, millions of miles of highway.

The California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory is based on information submitted by members, land managers, botanists, and researchers throughout the state, as well as published sources. The inventory highlights nonnative plants that are serious problems in wildlands (e.g., natural areas that support native ecosystems, including national, state, and local parks; ecological reserves; wildlife areas; national forests; and Bureau of Land Management lands). The Invasive Plant Inventory categorizes plants as High, Moderate, or Limited based on the species’ negative ecological impact in California. Plants categorized as “High” have severe ecological impacts. Plants categorized as “Moderate” have substantial and apparent, but not severe, ecological impacts. Plants categorized as “Limited” are invasive, but their ecological impacts are minor on a statewide level.

Exotic plant species exist within the nonnative plant communities throughout the BSA, within patches of native plant communities, and in areas that have been disturbed by human uses. Exotic species are typically more numerous adjacent to roads and developed areas and frequently border the ornamental landscape. In the past, these areas likely supported grasslands, oak woodland, coastal sage scrub (CSS), and riparian habitats. Consequently, scattered plant species associated with these plant communities are often found in these areas. Approximately 70 to 80 percent of vegetated lands within the BSA are dominated by invasive species, mostly consisting of annual grasses and forbs. A total of 45 exotic plants occurring on Cal-IPC's California Invasive Plant Inventory were identified in the BSA. Of these species, there are 6 with a high rating, 23 with a moderate rating, and 16 with a limited rating. Invasive species that have severe ecological impacts are given a high rating. Species with a high rating identified within the BSA are: giant reed, foxtail chess (*Bromus madritensis ssp. madritensis*), hottentot-fig (*Carpobrotus edulis*), pampass grass (*Cortaderia selloana*), fennel, and English ivy (*Hedera helix*). These observations should not be considered all-inclusive.

3.3.6.3 Environmental Consequences

None of the species on the California list of noxious weeds is currently used by Caltrans for erosion control or landscaping.

Permanent Impacts

No Build Alternative

The No Build Alternative proposes no construction or other disturbance in the BSA; therefore, the No Build Alternative would result in no adverse impacts related to invasive species.

Build Alternatives

Implementation of the build alternatives would have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. The plant palette used for revegetation would not include invasive species; therefore, the build alternatives for the proposed project would not have a substantial effect on invasive species.

Temporary Impacts

No Build Alternative

The No Build Alternative does not propose any construction or other disturbance in the BSA; therefore, the No Build Alternative would result in no adverse impacts related to invasive species.

Build Alternatives

Implementation of the build alternatives would have the potential to spread invasive species by the entering and exiting of construction equipment contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway. With implementation of Minimization and Avoidance Measure BIO-10, temporary invasive species impacts are not anticipated.

3.3.6.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures will avoid, minimize, or mitigate potential temporary and permanent impacts related to invasive species:

BIO-10 In compliance with EO 13112, weed control will be performed to minimize the importation of nonnative plant material during and after construction. Eradication strategies will be employed should an invasion occur. Measures addressing invasive species abatement and eradication will be included in the project design and contract specifications. These measures may include, but not be limited to:

- During design phase, the landscape pallet will be sent and reviewed by the Caltrans biologist.
- All construction site BMPs from the SWPPP will be followed.
- During construction, all construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and will be inspected to reduce the potential of spreading noxious weeds before mobilizing to arrive at the site and before leaving the site. This will be included in project provisions.
- After construction, affected areas adjacent to native vegetation will be revegetated with plant species native to the southern California region approved by the Caltrans District Biologist.
- After construction, all revegetated areas will be prohibited from the use of species listed in the Cal-IPC California Invasive Plant Inventory that have a high or moderate rating.

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